

IN THE DRAWINGS:

Please replace Figures 1-3 with the attached amended drawing Figures 1-3. One Replacement Sheet and One Annotated Sheet containing amended Figures 1 and 3 are attached hereto.

REMARKS

Careful consideration has been given by the applicants to the Examiner's comments and rejection of the claims, as set forth in the outstanding Office Action, and favorable reconsideration and allowance of the application, as amended, is earnestly solicited.

With regard to the specification, applicants have amended Page 1 to include reference to the parent application, which has now matured into U.S. Patent No. 6,747,331.

Furthermore, with regard to the drawings, applicants herewith enclose a Replacement Sheet and an Annotated Sheet for Figures 1-3 indicating the corrected reference numerals in Figures 1 and 3, which should read "22" in lieu of "24" at the edge portions of the component 14. This should clearly meet all of the requirements with regard to formal matters.

Applicants further note the rejection of the claims under 35 U.S.C. §103, wherein Claims 1-7 and 15-20 have been rejected as being unpatentable over Murayama, U.S. Patent No. 6,303,998 in view of Kodnani, et al., U.S. Patent No. 6,596,559 or applicants' admitted prior art. In this connection, applicants have carefully taken cognizance of the extensive comments set forth by the Examiner with regard to the claims.

However, upon careful consideration of the art, most of which is analogous to or similar to the art cited in the parent application, which has already matured into U.S. Patent No. 6,747,331 B2, applicants respectfully submit that the claims clearly contain allowable and patentable subject matter.

However, in order to advance the prosecution of the present application, applicants have amended the claims to be generally in conformance with the scope of the

claims of the parent patent, wherein Claim 1 has been amended to incorporate the subject matter of Claims 3 and 7; and Claim 15 has been amended to incorporate the subject matter of Claim 18.

In essence, these claims, as amended, set forth structural features, which are not at all disclosed in the art, irrespective as to whether the latter is considered singly or in combination.

Although Kodnani, et al. discloses, among various other publications and patents, dealings relating to organic substrates, it is not obvious to one of ordinary skill in the art at the time the invention was implemented to utilize a polymer substrate. Although Murayama is related to the technology of electronic packaging, there was no disclosure of utilizing a polymer substrate analogous to that as set forth herein in which the material employed presents significant advantages over the technology.

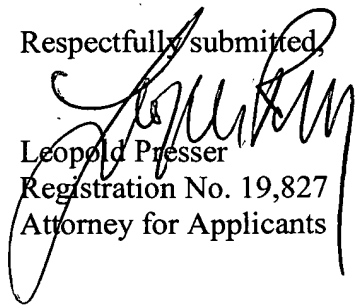
Consequently, Kodnani, et al. does not disclose the type of construction as set forth in the claims and as clearly described in the present specification and essentially falls into the prior art category as represented in Figures 1-3 of the drawings.

Furthermore, with regard to Kodnani, et al., the adhesion which is deemed to be an improvement as being present between the underfill and substrate is not an aspect of the present invention. An improved adhesion can reduce underfill delamination to some extent; however, failure can readily occur at higher levels of encountered strain. Consequently, inasmuch as adhesion alone is not sufficient, the reduction of package strain is critical in nature. Moreover, while improved adhesion is very important for some aspects of electronic package structures, in fact, it renders the warpage and package strain aspects worse in many areas and is not desirable from that perspective.

Murayama deals only with the warpage of a substrate as it relates to package attachment to a circuit card and its effect on the second level solder joints. To the contrary, the present invention, as set forth in the claims, demonstrates the benefits of reducing package strain and resulting failure in the areas such as chip cracking, underfill delamination, circuit line and solder mass cracking in addition to other types of strain-induced laminate damage. These aspects are shown in addition to the second level attach and BGA (Ball Grid Array) benefits. Furthermore, Murayama also fails to deal with back bonded chip configurations, the benefits of which are described in the present application, as set forth in the claims.

In summation, the present invention, as set forth in the amended, more specific claims, is deemed to clearly and patentably distinguish over the art, and in view of the foregoing comments and amendments, the early and favorable reconsideration and allowance of the application by the Examiner is earnestly solicited. However, in the event that the Examiner has any queries concerning the instantly submitted Amendment, applicants' attorney respectfully requests that he be accorded the courtesy of possibly a telephone conference to discuss any matters in need of attention.

Respectfully submitted,


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Enclosure: Replacement Sheet and Annotated Sheet for amended Figures 1-3



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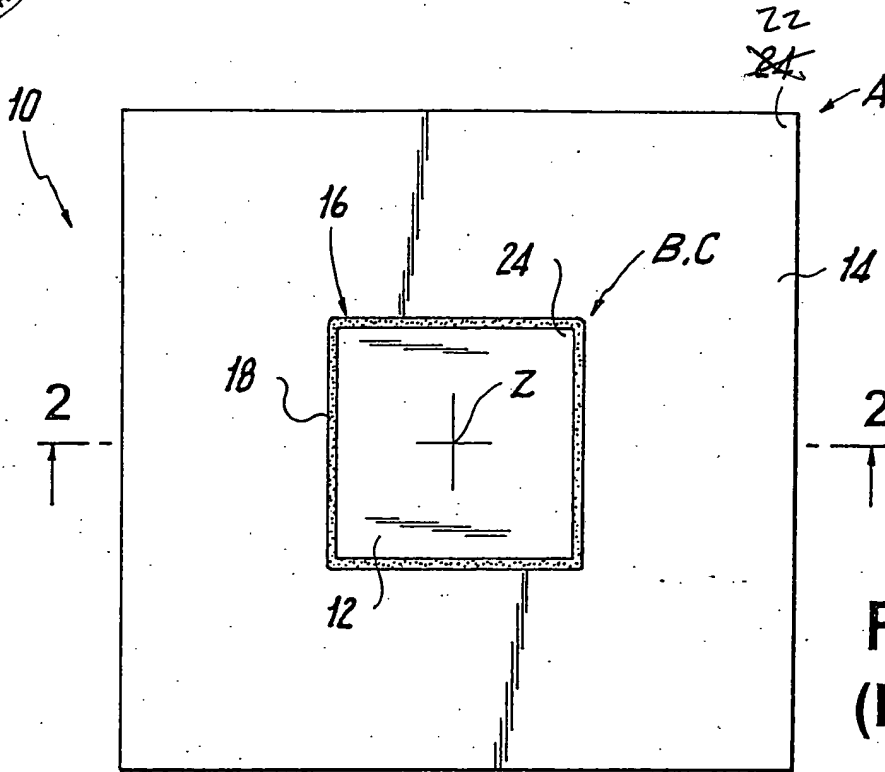


Figure 1
(Prior Art)

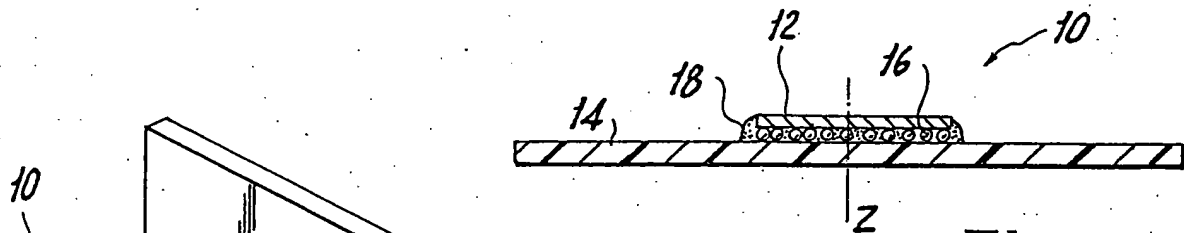


Figure 2
(Prior Art)

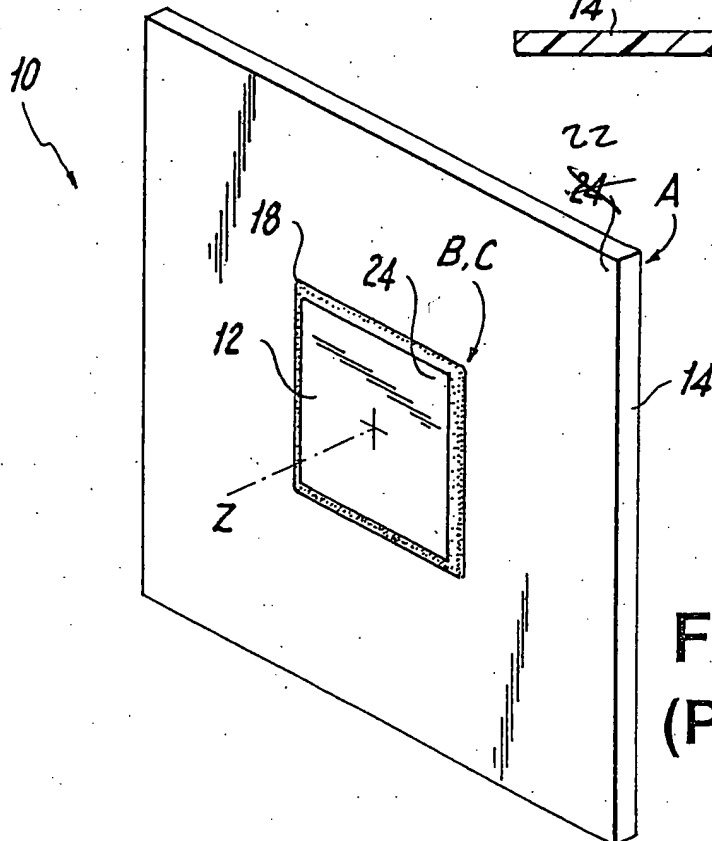


Figure 3
(Prior Art)